Amendments to the Specification:

Please replace paragraph [0002] with the following amended paragraph:

An AC generator consists of a rotor comprising a rotor core, on which an exciting coil is wound, to be fixed around a rotary shaft facing each other and a stator comprising an annular stator core, on which a stator coil is wound, to be mounted facing the rotor **[[at]]** with a clearance therebetween.

Please replace paragraph [0003] with the following amended paragraph:

The generator as above described is designed to generate dielectric electromotive power in the stator coil but, when current is generated in the stator coil, magnetic flux is generated by the armature reaction.

Please replace paragraph [0005] with the following amended paragraph:

In order to attenuate the magnetic noise, it is well known that, as disclosed in the ~~Patent Document 1~~ **[[(]]**Japanese Patent Publication No. Hei 06-48897 (1994)**[[)]]**, for example, a tapered surface is provided on the rear end in the rotational direction on the outer perimetric surface of a magnetic pole claw of the rotor core protruding in the same coaxial direction.

Please replace paragraph [0006] with the following amended paragraph:

Recently, for achieving higher output, ~~it becomes popular to install permanent magnet~~ permanent magnets have been installed between the

magnetic pole claws of the rotor core mounted around a shaft facing each other. In order to hold the permanent magnet, it is well known that, as disclosed ~~in the Patent Document 2~~ [[(]]Japanese Application Patent Laid-Open Publication No. Hei 09-98556 (1997)[[)]], a permanent-magnet fastener is provided on the inner perimetric end of the magnetic pole claw.

Please delete paragraph [0007] in its entirety.

Please replace paragraph [0008] with the following amended paragraph:

By the method according to the ~~Patent Document 1~~ aforementioned Japanese Patent Publication No. Hei 06-48897, it is possible to attenuate noise while preventing the lowering of performance. However, there arises a problem that providing the tapered surface as disclosed therein requires a cutting process using a milling cutter, resulting in longer process time and also higher cost because cutting burrs need to be removed.

Please replace paragraph [0009] with the following amended paragraph:

Forming by forging may be a solution to the above problem. However, if the rotor core is formed by conventional extrusion forging by applying a press in the axial direction only, the material flow becomes uneven because the circumferential cross section of the magnetic pole claw is asymmetric, and hence higher load is needed for forming in higher accuracy, resulting in shorter life of the dies.

Please replace paragraph [0010] with the following amended paragraph:

It is popular that the fastener for holding the permanent magnet as disclosed in ~~the Patent Document 2~~ Japanese Patent Application Laid-Open Publication Number Hei 09-98856, is cut out on the inner perimetric end of the magnetic pole claw of the rotor core or formed in one-piece when the magnetic pole claw is formed.

Please replace paragraph [0011] with the following amended paragraph:

As explained above, the above-discussed prior art ~~in both Patent Documents~~ is not only disadvantageous ~~in view of the~~ from the view point of productivity but also ~~weak in~~ in terms of improving the production accuracy because the tapered surface and the permanent-magnet fastener are formed separately.

Please replace paragraph [0016] with the following amended paragraph:

According to the present invention, it is preferred that the tapered surface and fastener are formed on each magnetic pole claw while the inner perimetric surface of each magnetic pole claw is constrained individually by a die.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a vertical cross-sectional view of an embodiment of an AC generator for vehicle that employs a rotor core manufactured according to the present invention

Fig. 2 is a horizontal cross-sectional view of an essential portion of Fig. 1

Fig. 3 is ~~an oblique~~ a perspective view of one embodiment of the rotor core ~~of an embodiment~~ manufactured according to the present invention

Fig. 4 is ~~an oblique~~ a perspective view of the intermediate blank of the embodiment of the rotor core ~~of an embodiment~~ manufactured according to the present invention

Fig. 5(a) is [[a]] an enlarged cross-section of an ~~essential~~ isolated portion of the magnetic pole claw [[20a]] of the intermediate blank in a state just before being formed, and Fig. 5(b)is a vertical cross-section of an ~~essential~~ isolated portion of the magnetic pole claw [[20a]] of the intermediate blank in a state just before being formed.

Fig. 6(a) is [[a]]an enlarged cross-section of an ~~essential~~ isolated portion of the magnetic pole claw [[2a]] of the rotor core in a state just after being formed, and Fig. 6(b) is a vertical cross-section of an ~~essential~~ isolated portion of the magnetic pole claw [[2a]] of the rotor core in a state just after being formed.

Please delete paragraph [0017] in its entirety.

Please replace paragraph [0018] with the following amended paragraph:

~~Fig. 1 is a vertical cross-sectional side view of an~~ The embodiment of an AC generator for a vehicle ~~that~~ shown in Fig. 1 employs a rotor core 2 manufactured according to the present invention.

Please replace paragraph [0019] with the following amended paragraph:

A rotor 1 comprises [[a]] the rotor core 2 fixed around a rotary shaft 6. ~~and the~~ The rotor core 2 has an ~~exciting~~ excitation coil 4, which is an electrically insulating bobbin on which insulation-coated conductor is wound in a number of turns, and the rotor 1 is rotated together with the rotary shaft 6. DC current is supplied to the ~~exciting~~ excitation coil 4 via a slip ring comprising a brush 8 held in a brush holder and a brush ring 9 fixed on the rotary shaft 6, [[and]] whereby magnetic flux is generated. Then, according to the number of poles, the rotor 1 excited by the ~~exciting~~ excitation coil 4 generates N-pole and S-pole on a magnetic pole claw 2a of the rotor core 2 in the circumferential direction of the rotor. In order to increase the ~~magnet-motive~~ magneto-motive force, a permanent magnet 3 is placed and fastened between the magnetic pole claws 2a of the rotor core 2.

Please replace paragraph [0022] with the following amended paragraph:

Fig. 2 is a horizontal cross-sectional view of an ~~essential~~ isolated portion of the rotor 1 and stator 12. The stator 12 has insulation-coated stator coils 11 embedded in the slots 10a provided on the stator core 10. While a permanent magnet 3 is mounted between the magnetic pole claws 2a, mounted to face each other, of the rotor core of the rotor 1, the permanent magnet 3 is covered with a protective cover 5 so as to prevent it ~~form~~ from scattering around in case of crack or breakage. The permanent magnet 3 and protective cover 5 are prevented from

moving outwards in the radial direction due to a centrifugal force of the rotor 1 by a permanent-magnet fastener 2d that extends from the inner perimetric end 2c of the magnetic pole claw 2a in the circumferential direction. In addition, of the outer perimetric surface 2e of the magnetic pole claw 2a, a tapered surface 2f is so formed only on the outer perimetric end 2i at the rear in the rotational direction 13 that the clearance between the inside surface 10b and the outer perimetric surface 2e of the magnetic pole claw 2a is widened in order to attenuate the noise. This tapered surface may be a curved surface ~~approximated to~~ approximately a taper.

Please replace paragraph [0023] with the following amended paragraph:

Fig. 3 is ~~an oblique~~ perspective view of the rotor core 2 ~~of the embodiment explained~~ shown in Fig. 1 and Fig. 2. There are provided both the permanent-magnet fastener 2d, extending from the inner perimetric end 2c of the magnetic pole claw 2a in the circumferential direction, for preventing the movement outwards in the radial direction and the tapered surface 2f, formed on the outer perimetric end 2i n one end of the perimetric surface 2e in the circumferential direction, for attenuating the noise. The magnetic pole claws 2a are continued or connected with each other by a plate section 2b.

Please replace paragraph [0024] with the following amended paragraph:

Steel material, made from magnetic substance of low carbon steel, suitable for rotor core of a DC generator is selected for the rotor core 2 and processed by a

sequence that includes cutting - hot forging - cutting - lubrication - cold forging - cutting ~~in this sequence~~ to form an intermediate blank 20 shown in Fig. 4. And then, the permanent-magnet fastener 2d and tapered surface 2f are locally cold-formed on the magnetic pole claw 2a. 2g denotes the inner perimetric surface of the magnetic pole claw of the rotor core.

Please replace paragraph [0025] with the following amended paragraph:

Fig. 5(a) shows the cross-section of an essential portion of the magnetic pole claw 20a of the intermediate blank in a state just before being formed. Fig. 5(b) shows the vertical cross-section of ~~the essential~~ an isolated portion of the magnetic pole claw 20a of the intermediate blank in a state just before being formed. Fig. 6(a) shows the cross-section of the essential portion of the magnetic pole claw 2a of the rotor core in a state just after being formed. Fig. 6(b) shows the vertical cross-section of the essential portion of the magnetic pole claw 2a of the rotor core in a state just after being formed.

Please replace paragraph [0026] with the following amended paragraph:

The magnetic pole claw 20a of the intermediate blank as shown in Fig. 4, on which the inner perimetric surface 20g and inner perimetric end 20c of the magnetic pole claw 20a, the permanent-magnet stopper 20j on the end on which no taper is to be formed, and the plate portion 20b are all formed in finish dimensions, is mated with a fixed die 30 as shown in Figs. 5(a) and 5(b). The shape of the die is approximately similar to that of the inner perimetric surface

20g and inner perimetric end 20c of the intermediate blank 20, and its dimensions is about the same as a finished one. The die comprises a bottom portion 30a that bears the pressure of the inner perimetric surface 20g of the magnetic pole claw 2a, side portion 30b that constrains the deformation of the inner perimetric end 20c, and forming portion 30c that bears the pressure of the fastener forming portion 20d and forms the permanent-magnet fastener 2d.

Please replace paragraph [0027] with the following amended paragraph:

When a forming pressure 40 is applied in forming from Figs. 5(a) and 5(b) to Figs. 6(a) and 6(b), since the vertical cross-section of the magnetic pole claw 2a has a wedge shape, a component force 41 for moving the magnetic pole claw 2a along the bottom portion 30a of the die is generated. Accordingly, as shown in Fig. 5(b), a constraint force 42 has been applied beforehand from the direction of the plate portion 20b of the intermediate blank to fasten it. Numeral 2g denotes the inner perimetric surface of the magnetic pole claw of the rotor core.

Please replace paragraph [0029] with the following amended paragraph:

In the above process, the material of the forming portion on the tapered surface 2f flows into an area left unfilled in the forging process of the intermediate blank 20, mating gap to the die 30, or outer perimetric surface 2e around the forming punch 31 although its volume is as small as 1.1% to 1.4% of

that of the magnetic pole claw 2a. For the permanent-magnet fastener 2d, however, since it stretches in the circumferential direction as a result of being compressed thinner, it is recommended to adjust the volume of the fastener forming portion 20d ~~in it volume~~ on the intermediate blank 20. Otherwise, after forming is complete, it is permissible to trim off unnecessary portion of the permanent-magnet fastener 2d that has stretched in the circumferential direction. The bearing pressure of the forming punch 32 **[[is]]** averages about 90 kgf/mm^2 ~~in average~~ in this embodiment, which is ~~satisfactorily~~ well within an allowable bearing pressure range for die steel. In addition, since plastic flow of the material is ~~hardly~~ barely caused on the surface of the die, seizure or similar trouble is ~~hardly~~ not practically experienced, as a result of which satisfactory surface can be maintained on the die.

Please replace paragraph [0030] with the following amended paragraph:

According to the method as described above, it is possible to ~~perform forming~~ form with superior forming accuracy, less stress and friction onto the die, and less problem on the die life as compared to the extrusion forming by applying a press in the axial direction only. In addition, process time is shorter and no ~~bur~~ burr removal is needed as compared to the forming by cutting.